Mineral Policy in Developing Countries: Protecting Investors or the Environment?[1]

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Resource Policies: Effectiveness, Efficiency, and Equity

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Abstract

This paper examines the relationship between foreign direct investment in the mineral sector and environmental regulation in developing countries. Global flows of foreign direct investment (FDI), including mineral investment, are overwhelmingly concentrated amongst OECD countries. However, for some developing countries, their small share of the global flows of mineral investment can represent a considerable share of overall FDI entering the country, and can contribute significantly to state revenue. At the same time it is also the case that few if any forms of economic development present the array of potential environmental, social and economic problems of the mining industry. There is no comprehensive international agreement on mining, and environmental regulation for the sector in many developing countries is a relatively recent phenomenon. Furthermore, governments often lack the relevant tools and manpower to properly enforce the environmental regulations that are in place. Against this backdrop, It is argued that two major trends in global mineral investment have emerged in recent years; the increasing competition amongst developing countries to attract mineral investment, and the development and proliferation of a standard set of legal protections for mineral investors including access to international arbitration and commitments to stability of the legal regime. Both of these trends may have implications for environmental regulation, which are examined in the paper both in general terms and in the context of two detailed case studies concerning mineral exploitation in protected forests in Ghana and Indonesia.

1. Introduction

Global flows of foreign direct investment (FDI), including mineral[2] investment, are overwhelmingly concentrated amongst OECD countries. However, for some developing countries, their small share of the global flows of mineral investment can represent a considerable share of overall FDI entering the country, and can contribute significantly to state revenue (Sandbroke and Mehta 2002: 2). At the same time it is also the case that "[f]ew if any forms of economic development present the array of potential environmental, social and economic problems of the mineral resources industry" (Pring and Siegele 2005: 129). There is no comprehensive international agreement on mining (Dalupan 2005: 153) and environmental regulation for the sector in many developing countries is a relatively recent phenomenon (UNCTAD 1997: 47). Furthermore, governments often lack the relevant tools and manpower to properly enforce the environmental regulations that are in place (Onwuekwe 2006: 121). As Cohen (1996: 151) points out, "[w]ithout effective environmental controls, developing countries risk suffering serious, irreversible environmental harm" from large-scale mining projects. Thus the mining sector provides a good case study for the analysis of the relationship between investment and the environment in view of the environmental, economic

and social importance of the sector in many FDI-host countries (Sandbroke and Mehta 2002: 2; Chudnovsky and López 2002: 62).

Against this backdrop, there are two important (and interrelated) trends occurring in mineral investment, which reflect broader trends in international investment generally: first, the increased competition amongst developing countries to attract foreign investors; and second, the development and proliferation of a standard set of legal protections for those investors. The purpose of this paper is to provide a brief overview of these two trends, with a particular focus on how they may affect the regulation of the environment in developing countries, and also to further explore these issues within the context of two case studies concerning mineral exploitation in areas of protected forests. While both competition for investment and the legal protection of investment are subjects of intense academic debate, which has included discussion of environmental issues (e.g. the pollution haven hypothesis, see Section 2; and the legal discussion surrounding investor-state disputes, see Section 3) these topics are rarely treated together. As a result the links between the two trends are often not drawn. Furthermore, while research on competition has been dominated by economic/statistical analyses and the legal discussions have been concentrated on a few disputes (mainly within the context of the North American Free Trade Agreement/NAFTA[3]), few authors have provided detailed case studies from the developing world. The paper concludes with some lessons that can be drawn from the two cases, as well as suggestions for further research.

2. State Competition for Mineral Investment

According to Oman (2000: 15), "[c]ompetition among governments to attract corporate investment appears to have heated up in recent years." The reasons postulated for this include: the large number of developing/transitional countries that have moved from closed to market friendly economies in the 1980s/90s; the fact that OECD governments have also moved to more deregulated and liberalized economies and are seeking to attract more investment; the increased mobility of capital; and the reduction in barriers to international investment (Oman 2000: 15-16).

This competition is particularly evident in the minerals sector. The debt crisis, combined with the deterioration in developing countries' terms of trade led to a global movement away from State control of the mineral sector, which began in the late 1970s and

gained momentum in the 1980s and 1990s (UNCTAD 1997: 6). Structural Adjustment Programmes developed by the World Bank/International Monetary Fund also played an important role in driving this process. As Otto (1994: 2) points out, the result is that mining companies have "unprecedented access to a vastly increased portion of the planet's land area." Thus,

> at the turn of the millennium, international investors faced an increasing number and variety of geologically interesting countries with acceptable legal and fiscal frameworks. Consequently, countries have had to compete among one another to attract investment into their minerals sectors on a continuing basis (Williams 2005: 38).

While mineral investors remain fundamentally 'resource-seeking' (Caspary and Berghaus 2004: 684), competition within a set of geologically favourable countries will be based on other factors. As Omalu and Wälde (1998) state: "any country with a favourable geology has to combine this with an attractive mineral investment regime to attract considerable mineral sector investment." Otto and Cordes (2002: III-3) found that around 120 countries have reformed their legal regimes for mining since 1985.

With regard to the impact of state competition for foreign investment on the environment, academic discussion has long been dominated by the debate surrounding the 'pollution haven' hypothesis. This hypothesis relates to the notion that investors will be attracted to countries with lower 'environmental costs', and that in order to be competitive countries will attempt to keep such costs low;

> A country provides a pollution haven if it sets its environmental standards below the socially efficient level or fails to enforce its standards in order to attract foreign investment from countries with higher standards or countries that better enforce their standards (Neumayer 2001a: 148).

Two closely related concepts are 'industrial flight' and the 'race to the bottom', which Mabey and McNally (1999: 30) effectively combine into a comprehensive definition of the whole phenomenon:

> in order to attract investment, governments will undervalue their environment through law or non-enforced regulation (the "pollution havens" hypothesis). As a result, companies will shift operations to these countries to take advantage of lower production costs (the "industrial flight" hypothesis). Both lead to excessive (sub-optimal) pollution in the host country and a potential race-to-the-bottom in environmental standards.

Although it would be logical to assume that the pollution haven hypothesis emerged out of a concern about the potential impacts that foreign investment could have on environmental quality in developing countries, in fact, it was rather the threat of industrial flight and concerns over potential job losses that first sparked an interest in developed/OECD countries (Clapp 2002: 11; Mabey and McNally 1999: 30, Oman 2000: 92; Strohm 2002: 29). As a result, many of the early studies on pollution havens were actually pre-occupied with this one

aspect of the overall phenomenon. By the mid-1980s, researchers had concluded that the new strict environmental regulations in developed countries had not caused industrial flight, and thus rejected the validity of the pollution haven hypothesis as a whole (Strohm 2002: 31).

However, despite the lack of evidence about industrial flight, public concern about pollution havens did not dissipate. Furthermore, many researchers themselves did not appear to be completely convinced. As Wheeler (2002: 6) notes, despite the lack of evidence "caution is undoubtedly warranted because there is no theoretical reason why industries with exceptionally high pollution control costs should ignore regulatory concerns." An opponent of the hypothesis would likely argue in response that because environmental costs make up only a small proportion of a company's total costs, they will have little impact on a firms' locational decisions, particularly in comparison to other factors, which Oman (2000: 17) refers to as "fundamentals" (political and macroeconomic stability, market access, infrastructure etc.). However, it is also true that, particularly in certain industries, environmental costs are on the rise, while at the same time industrial relocation is becoming easier "[w]ith fewer barriers to foreign investments, easier repatriation of profits and other commitments facilitating trade and capital flows" (Esty and Geradin 1998: 9). In the mineral sector, it is widely acknowledged that it "has become increasingly more difficult to mine in most developed nations" (Otto and Cordes 2002: III-3), due in large part to ever more stringent environmental regulations.

Recently, researchers have found "statistically significant pollution haven effects of reasonable magnitude" (Brunnermeier and Levinson 2004: 38), and the earlier consensus about pollution havens may be changing. In addition, there has been an increasing amount of academic critique of the entire framing of pollution haven research. Of particular relevance to this paper is the criticism that the scope of the problem is narrowly confined by the definition of 'dirty industry' adopted by most researchers who investigate pollution havens. The primary focus has been on the manufacturing sector, ignoring the highly polluting resource extraction industries, which make up the bulk of investment flowing to many low-income countries (Clapp 2002: 12; Mabey and McNally 1999: 11). Neumayer (2001a: 173) notes:

> Especially in the mining and other resource extraction sectors, multinational corporations also at times do take advantage of low environmental standards in the host country – an impact on the environment that is outside the pollution haven hypothesis proper.

Environmental damage is also very narrowly defined in pollution haven research. The data used to determine which sectors are highly polluting is largely emissions data or information on expenditures related to emissions controls (Clapp 2002: 12). Habitat destruction,

biodiversity loss, and numerous other environmental impacts are not captured by this limited scope. In the case of mineral production, "upstream problems (land and ecosystem degradation, acid mine drainage, slope failures, etc.)" are the predominate concerns, particularly in the case of open-pit or surface mining (Warhurst 1994: 42).

Mabey and McNally (1999: 3) argue that

> By asking the wrong question, and looking for the wrong evidence the "pollution havens" debate has deflected discussion away from more important issues such as: the scale of economic activity relative to regulatory capacity and environmental limits; broad development/environment linkages; resource use and planning issues, and the complex policy and institutional failures linked to competition for FDI both between and inside regional trading areas.

Many researchers appear to agree, and now advocate the abandonment of the pollution haven debate and the adoption of a "more open-ended analysis of the linkages between global trade and investment and environmental regulation" (Clapp 2002: 12). In dismissing the value of continued research on pollution havens, several authors have directed attention to a potential new avenue for research on the relationship between investment and the environment. Neumayer (2001b: 20-21) argues that "what really matters is what policy makers *believe*, not what economic theory and evidence says, and there can be no doubt that they actually do believe that countries compete with each other" (emphasis added). The notion that regulators fear raising environmental standards beyond the status quo because they believe it may deter new investment or cause industrial flight has been termed 'regulatory chill'.

Regulatory chill is not restricted to an investor's decision on where to locate, as it is also acknowledged that established companies may apply pressure to host governments to lower, not raise, or not enforce environmental regulations (Mabey and McNally 1999: 42). Furthermore, this new research paradigm broadens the scope of environmental degradation beyond traditional notions of 'pollution'. In doing so, it also broadens the scope from purely local/national issues, to environmental issues of global concern. In fact Neumayer (2001b: 3) suggests that:

> A priori, we would expect 'regulatory chill' to be more prevalent with respect to environmental standards concerning pollutants affecting the so-called global commons, such as the global climate, the ozone layer, and biodiversity…because in the case of the global commons, the benefits of raising environmental standards have to be shared with all or at least many other countries as well. In as far as capital flight is perceived to be one of the costs of raising environmental standards, it will become relatively more important in this case then, as the costs are balanced against dispersed benefits.

The method of enquiry proposed for evaluating regulatory chill is also in marked contrast to that adopted for pollution haven research. Statistical analysis is difficult, if not impossible, when one is looking for evidence of "what has not happened" (Mabey and McNally 1999: 40). Thus, it is argued that the research should be conducted by historians and political

scientists, not economists, and should involve detailed case analysis (Mabey and McNally 1999: 40; Clapp 2002: 17).

3. State Commitments to Investment Protection

Closely linked to the increased competition amongst developing countries to attract foreign investment is the trend of countries to offer certain forms of legal protection to investors. These legal protections are aimed at managing 'political risk' which

> can be understood as the occurrence of events in the political sphere (governmental actions, politically motivated insecurity in the country and international conflict) which impede the normal operations of a business venture with a detrimental financial impact on the commercial viability of the venture (Wälde and N'Di 1996).

Such risk is inherent to all investment, but is perceived as particularly strong for investments in developing countries, and also for those in the mineral sector, which are seen as particularly vulnerable because, as Otto and Cordes (2002: I-41) point out, they:

> 1) are highly capital-intensive investments that cannot be relocated; 2) use relatively stable production technologies; 3) produce a homogeneous product with little customer or brand name loyalty; and 4) operate in an oligopolist industrial structure with limited competitors.

In addition to any general commitments to investment protection made by a state under international agreements with other states, for example in bilateral investment treaties (BITs), there may also be specific protections offered to mineral investors under national law or through contracts made directly with the investor.

According to de Sa (2005: 493), the "building blocks" of a successful mineral policy are: a transparent legal and regulatory framework; a competitive, stable and fair fiscal regime; strong institutions to implement them; and sound environmental management systems. In addition, the mineral policy must be combined with broader economic reforms, which includes "the establishment of a competitive investment climate for private sector participation, including the liberalization of investment laws, and deregulation" (de Sa 2005: 495). Bastida (2001: 32) also highlights that a key legal protection for many mineral investors is security of mineral tenure;

> At its most elementary, security of tenure implies the notion that the investor has to be provided with the assurance of being able to develop a successful discovery prior to committing sizeable resources to exploration, or the right to proceed from the exploration to the mining stage ('the right to mine'). However, in recent years the understanding of the concept has tended to broaden, both to take account of the uncertainties involved in carrying out a mining project, and the need to do it profitably.

In most developed countries mining rights are based only on law and regulation, however developing countries have relied far more on agreements with investors referred to

as ‘state contracts’ (and sometimes as ‘concession agreements’ in the area of natural resource exploitation) (UNCTAD 1997: 9; UNCTAD 2004: 3). A state contract can be defined as

> a contract made between the State, or an entity of the State, which, for present purposes, may be defined as any organization created by statute within a State that is given control over an economic activity, and a foreign national or legal person of foreign nationality (UNCTAD 2004: 3).

Prior to the beginning of the decolonization process, the concession contract was the main form of agreement between a foreign mining investor and a national government in the developing world. At that time, mining companies possessed greater bargaining power as they had the support of their home states. Following decolonization, in the period defined by the move by developing countries to assert sovereignty over natural resources, the bargaining power shifted, and many mining contracts were renegotiated or the industries were nationalized. In recent years, with the increased competition between states for mineral investment, Barberis (1998: 3) argues that the bargaining power has begun shifting back in favour of mining companies.

Despite the fact that mining companies may currently be said to have the advantage in negotiating contracts, it is also the case that these contracts can be seen as an ‘obsolescing bargain’ (Barberis 1998: 54). This means that the power of the foreign investor wanes dramatically over the period of the contract, as investment is sunk into a project (Wälde and N’Di 1996). Thus investors are concerned that governments may exploit their improved position and try to alter the terms of the initial agreement. It is this risk that has motivated the move towards the ‘internationalization’ of state contracts:

> The theory of internationalization of contracts suggests…that the obligations arising from a contract may reside in an external system. This external system is variously described as transnational law of business, general principles of law, *lex mercatoria* and even as international law. This theory states that the use of certain clauses may have the effect of internationalizing the contract for certain purposes, at least those connected with termination and dispute resolution (UNCTAD 2004: 6).

Particularly in the mineral sector, the high level of risk inherent in the activity, as well as the scope and size of resources required has “led to the establishment by the large multinational companies of a particularly refined system of contractual guarantees for the protection of their investments” (Bernardini 2001: 236). This paper will focus on the guarantees of *stability* and access to *international arbitration* in the event of a dispute.

3.1 Stability

According to Pritchard (2005: 80), “adverse change in law” (that is any change in law which may adversely affect an investment) is the “most feared legal risk of mining investors.” One method of managing the risk of adverse change in law is the use, in national law or state

contracts, of stabilization clauses, which "seek to preserve the law of the host country as it applies to the investment at the time the state contract is concluded, and which ensures that the future changes to the law of the host country are inapplicable to the foreign investment contract" (UNCTAD 2004: 26). Stabilization clauses were reported to have diminished in scope and frequency in the 1970s, but they now appear to be re-emerging in even more extensive forms than were previously observed (Wälde and N'Di 1996). This is particularly the case in the resource extraction sector where, according to many authors, investments have a greater need for stability than other shorter-termed industrial projects (Wälde and N'Di 1996; Bernardini 2001: 236).

While stability of the fiscal regime "is probably the key issue for stabilization concerns" there are other concerns for which it may be desirable for investors to negotiate a stabilization clause:

> Perhaps most relevant at the moment is the imposition of new environmental obligations by subsequent regulation or by an administrative/judicial ruling re-interpreting existing law on which, arguably, the investment decision may to some extent have been based (Wälde and N'Di 1996).

As Verhoosel (1998: 457) points out, even if a stabilization clause does not explicitly refer to environmental regulation it could effectively cover it. For example, a stabilization of the fiscal regime could cover market-based environmental measures. However, while advantageous to the investor, such clauses may be problematic from the perspective of the regulator:

> Environmental management is a dynamic activity, responding to growing knowledge concerning the environment and anthropogenic threats to it, as well as to changing perceptions concerning the seriousness of these threats…An added level of complexity derives from the continuous development of technologies designed to protect the environment. As these technologies become available, policy must adjust to reflect new capabilities (von Moltke 2002: 358).

Applying the constraints of stability to the regulation of the environment, particularly in the developing world, is thus a subject of legitimate concern.

Some authors have questioned the binding character of stabilization clauses, arguing that states cannot waive their sovereignty in such a manner (Bernardini 2001: 242; Sornarajah 2004: 408). However, despite the academic debate, the crucial point is that tribunals have frequently affirmed the validity of such clauses (Verhoosel 1998: 456). Most observers would agree with Peter (1995: 227) who argues that while stabilization clauses cannot stop a government from ''doing what it pleases'', the investor will be entitled to ''comprehensive compensation'' in the instance of a breach.

In light of the problems associated with stabilization clauses, many contracts adopt a slightly less demanding alternative; the renegotiation clause:

> By undertaking to renegotiate the contractual terms and conditions in case of supervening circumstances of any kind, including new legislative or regulatory measures, the State binds itself to conduct good faith negotiations with the private investor with the view of maintaining the economic equilibrium of the agreement as originally stipulated. An essential component of this type of provision is the granting to the international arbitrator of the power to determine the new economic equilibrium of the agreement should the parties fail to find an agreement in this regard within a specified time-limit (Bernardini 2001: 242).

As with a breach of a stabilization clause, renegotiation may result in compensation requirements or other remedies to restore the 'economic equilibrium' of the contract.

3.2 International Arbitration

There are two types of investor-state dispute settlement: 'institutional' and '*ad hoc*'. Institutional dispute settlement involves a supervising institution that administers the arbitration. The most common institution referred to in international investment agreements is the International Centre for the Settlement of Investment Disputes (ICSID). ICSID is a part of the World Bank Group and was established in 1966 when the Convention on the Settlement of Investment Disputes between States and Nationals of Other States came into force. Its most recent set of Rules and Regulations entered into force in 2006.[4] ICSID was designed expressly for the purpose of handling investor-state arbitrations and does not handle disputes between firms.

Ad-hoc arbitrations also follow sets of established rules; however, in these cases there is no supervising institution. The most common *ad hoc* rules referred to in international investment agreements and state contracts are those of the United Nations Commission on International Trade Law (UNCITRAL). UNCITRAL was established by the UN General Assembly in 1966 and was given the general mandate to further the progressive harmonization and unification of the law of international trade.[5] An integral part of the Commission's work is the promotion of the Convention on the Recognition and Enforcement of Foreign Arbitral Awards (1958 'New York Convention'). The UNCITRAL Arbitration Rules were adopted in 1976.[6]

Foreign investors and advocates of international arbitration argue that local courts in developing countries are ill equipped to deal with investment disputes and, furthermore, that if asked to adjudicate claims brought against their own State these courts "may hardly be able to resist the political pressure inherent in this situation" (Bernardini 2001: 246). International arbitration, to the contrary, is commonly framed in the literature as neutral and depoliticized. However, in recent years, an increasing number of observers have disparaged international arbitration for its lack of transparency, accountability, and openness to third-party

participants.[7] Furthermore, it has been argued that international arbitration may particularly disadvantage developing countries, due to the high costs of disputes[8], their lack of expertise and experience in dealing with arbitration, and structural biases within the system.[9]

A plethora of investor-state disputes have sprung up in the last decade. The cumulative number of all *known*[10] cases brought under investment agreements was 219 as of November 2005, excluding instances where a notice of intent had been filed but the request for arbitration had not (UNCTAD 2005c: 2). This can be compared to the end of 1994 when there were only 5 known cases. At least 61 governments (37 in the developing world) have faced investment arbitration (UNCTAD 2005c: 3).

Concerns have been raised in the wake of several controversial investor-state disputes[11], particularly within the context of NAFTA, that in some instances the protection offered to investors may limit the ability of governments to regulate investment for the protection of the environment, natural resources and other social goods, and further that investor-state arbitration may not be an appropriate venue for issues of public concern to be decided upon.[12] Some authors have also hypothesized that the threat of an investor-state dispute could have a chilling effect on government policy (von Moltke and Mann 2004: 30; Gray 2002: 311; Neumayer 2001a: 87).

4. Case Studies: Mining in Protected Forests in Ghana and Indonesia

In the previous sections it has been argued that developing countries are increasingly driven to compete with each other to attract mineral investment and that as a consequence they have made commitments to provide investors with stability and access to international arbitration in the event of a dispute. There is considerable debate as to the precise effect of these clauses; however in any event, as Otto and Cordes (2002: IV-26) point out, “their effect may be more a psychological deterrent than a legal one.” This may be particularly true in developing countries, where concerns about attracting investment are high, and the capacity to deal with disputes is low.

This section will explore these issues further in the context of recent debates over mineral operations in Ghana’s forest reserves and Indonesia’s protection forests. These case studies are based on a variety of sources, including interviews I conducted from June-August 2005 under the condition of anonymity.

4.1 Ghana

Ghana has a very long history of mining, particularly of gold, dating back to pre-Christian times (Akabzaa 2000: 8) and in the colonial period was known as 'The Gold Coast'. According to Akabzaa and Darimani (2001: 17), in the period following independence "generally, the vicissitudes in Ghana's mineral industry mirror trends in the global mineral industry." In the 1970s the mining industry was the second largest foreign exchange earner for Ghana and provided jobs for thousands of people in the rural areas. However, the state-owned mining enterprises were under-capitalized and the industry was facing collapse.[13] From 1960 through to 1980, various modifications were made to the mining code aimed at attracting private participation in the industry, "but these were quite cosmetic" (Akabzaa and Darimani 2001: 18) and for four decades (up to the 1980s) no new mine was opened in Ghana due to a "myriad of problems faced by mining investors and potential investors alike as a result of the economic, financial, institutional and legal framework within which the sector operated"[14].

As in other African countries, deregulation of the mining sector in Ghana began in the context of a Structural Adjustment Programme. Reforms in Ghana are regarded as typifying the first phase of mining sector reforms undertaken in the context of these programmes (UNCTAD 2005a: 41). The mining sector received priority attention under the country's Economic Recovery Programme initiated in 1983, as this sector was considered key to the country's economic revival (Campbell 2004: 11). The World Bank carried out two major projects in the sector: first the Mining Sector Rehabilitation project, approved in 1988; followed in 1995 by the Mining Sector Development and Environment Project. A new Minerals and Mining Law was put into place in 1986, and a Minerals Commission was developed. The fiscal component of the laws was considered to be one of the most liberal at the time, only surpassed by those of Papua New Guinea (Campbell 2004: 11). The newly formed Minerals Commission was charged with implementing the law as well as overall responsibility for advising the government on mineral policy, reviewing mining sector activities and serving as a one-stop shop for mineral investors.

According to a study by UNCTAD (2005a), investment in mining in Africa has increased considerably in the past two decades and the region is now ranked third behind Latin America and Oceania. This increase "can be attributed in part to major changes in mining codes that have helped orchestrate a state withdrawal from the sector, expanded opportunities for the private sector and increased incentives to attract FDI" (UNCTAD 2005a: 39). In Ghana, since the inception of the Economic Recovery Programme the industry has

seen phenomenal growth. Over the period 1983-1998 some US$4 billion of private investment capital went into mineral exploration, the establishment of new mines, and the rehabilitation of existing ones.[15] Gold has been particularly important; Ghana is now the second largest producer of gold in Africa (after South Africa), and gold has replaced cocoa as the leading foreign exchange earner (Awudi 2002: 1). However, a calculation by UNCTAD based on 2003 government figures showed that Ghana earned only about 5 per cent of the total value of mineral exports – about US$46.7 million out of a total value of US$893.6 million (UNCTAD 2005a: 50). Furthermore, according to Awudi (2002: 1) the increased activity in the sector has not led to a significant increase in employment.

The 1986 Minerals and Mining Law provides for referral of disputes to arbitration in accordance with the UNCITRAL Rules, or within the framework of a bilateral agreement between Ghana and the investor's country. Ghana has so far concluded 21 BITs; some of the agreements have been ratified while others are still awaiting ratification.[16] Ghana is also a signatory to the 1958 New York Convention.

The mining law recognises three stages of mineral development, and an investor requires a separate license for each stage: reconnaissance (prospecting), prospecting (exploration) and mining (Omalu and Wälde 1998). In terms of mineral tenure, there is no automatic right for the holder of a reconnaissance licence to acquire a prospecting license, however, there is an automatic right for the holder of a prospecting licence to obtain a mining lease (Omalu and Wälde 1998; Addy 1999: 237). Mining leases are valid for up to thirty years, and generally include renewal clauses (Addy 1999: 237). Negotiations for licences and leases are normally led by the Minerals Commission, and the constitution requires any contract or undertaking to be ratified in Parliament by a two-thirds voting majority. However, ratification has little impact on the substantive content of agreements (Ayine et al. 2005). According to Ayine et al. (2005: 3), "[w]hether and when contracts become available to the wider public depends on whether the Parliamentary Committee invites public comments on the contract document; for most agreements placed before Parliament this does not happen" and furthermore "a typical mining lease would likely bind the government to treat all information submitted under obligations in the lease as confidential for a period of five years, or until termination of the lease. Even then, the consent of the company might be required" (Ayine et al. 2005: 4).

In the course of my research, three mining leases[17] have been obtained from company filings to the Security Exchange Commission in Washington D.C.[18] These examples may give some insight into the substantive content of Ghanaian mining leases, however, it should be

cautioned that other leases may differ significantly. Furthermore, it should be noted that in addition to mining leases, a more recent trend has been for companies to sign more general 'investment agreements' with the government. For example, Newmont signed such an agreement in 2003 with the government that covered its investments under three mining leases. While I am currently unaware of the substantive content of this agreement, it has been reported in the media that it contains stability clauses.[19] This trend is in line with the more recent changes proposed for Ghana's mining law, which will be discussed further below.

Returning to the content of the leases, it can be noted that with regard to environmental provisions, they are quite general:

> The company shall adopt all necessary and practical precautionary measures to prevent undue pollution of rivers and other potable water and to ensure that such pollution does not cause harm or destruction to human or animal life or fresh water or vegetation (Article 8b of all three leases).

In terms of dispute settlement, the 1987 and 1988 leases refer to the jurisdiction of ICSID for settlement by reconciliation or arbitration, while the more recent 2001 lease refers to UNCITRAL Rules. All three leases also have a second section to the arbitration clause, which stipulates that:

> The Parties acknowledge and agree that this Agreement was made on the basis of the laws and conditions prevailing at the date of the effective conclusion of the negotiation of this Agreement and accordingly, if thereafter, new laws and conditions come into existence which unfairly affect the interest of either party to this agreement, then the party so unfairly affected shall be entitled to request a re-negotiation and the parties shall thereupon re-negotiate. The parties hereby undertake and covenant with each other to make every effort to agree, co-operate, and negotiate and to take such action as may be necessary to remove the causes of unfairness or disputes.

This clause gives a preference to re-negotiation, but also clearly provides the investor with some stability.

The Dispute

Mining activities in Ghana are concentrated in the south of the country, as this is where the most substantial mineral deposits are found. Incidentally, this is also the area within which the majority of Ghana's remaining forestland is located. Following the launch of the Economic Recovery Programme, several gold mining companies were granted permission by the National Defense Council (NDC) government to carry out mineral exploration within forest reserves. Permanent forest estate, in the form of reserves, was developed by the colonial government in the early part of the last century, in recognition of the increasing pressures on Ghana's forests and with the intention to maintain climatic quality, protect watersheds and ensure an environment conducive to cocoa production (Kotey et al. 1998: 23). The demarcation of the forest estate was largely completed by 1939. While it is widely

acknowledged that much of the forest estate has been degraded despite the reserve status, it has also been suggested that without the reserves "Ghana wouldn't have any forest left"[20].

As early as 1992, the Forestry Commission was raising concerns about the potential impacts that mining could have on the reserves:

> Mining in forest reserves will imply abandonment of scientific management of forest reserves and consequently loss of goods and services derived from our forest heritage set aside 60-70 years ago. Ghana could be sanctioned by the International Conservation organizations, which have credited Ghana with a long history of responsibility for tropical forest conservation and management (Tuffuor 1992).

In 1996, based on the concerns about the depletion of the permanent forest estate and the potential for mineral activities to accelerate this depletion, the Ministry of Lands and Forestry placed a moratorium on mineral operations in forest reserves.[21] However, by this time, some mining companies had already reached advanced stages of exploration. The government selected seventeen companies, apparently on the basis of the level of investment incurred and the state of exploration that had been achieved, and determined that they should be allowed to continue with their exploration activities.[22] In 1997 the *Operational Guidelines for Mineral Exploration in Forest Reserves for Selected Companies* were produced and put in place to regulate exploration activities and the selected companies were invited to re-apply for Forest Entry Permits.[23]

Up until this point, the issue had not been widely publicised, however in 1998 the non-governmental organization Friends of the Earth (FOE) Ghana began to investigate further. The group visited the exploration sites and spoke with companies, who claimed that if they found economically viable deposits they would be given mineral leases.[24] FOE-Ghana expressed alarm over the potential consequences for forest conservation and founded a Coalition of Civil Society Groups Against Mining in Ghana's Forest Reserves (hereafter referred to as the FOE-Ghana Coalition).

In response to the concerns that were increasingly being raised over the possibility of mining in forest reserves, and in preparation for the expected transition from exploration to mine development, the Ghana Chamber of Mines, an association of representatives of mining companies operating in Ghana, took a fact-finding mission to South Africa and Australia, bringing with them representatives of the Forestry Commission, Environmental Protection Agency and other institutions. The purpose of the trip was to view successful mining operations in forests in these countries. Upon return from the trip the Chamber commissioned the preparation of the *Environmental Guidelines for Mining in Productive Forest Reserves*. In one view the issuing of the *Environmental Guidelines* followed "a thorough analysis and debates involving all stakeholders over a period of approximately 2.5 years" and they were

provided in "a format acceptable to the various interested parties and stakeholders."[25] However, members of the FOE-Ghana Coalition took a quite different view, pointing out that there was no consultation with communities directly affected by mining or forestry, or from civil society organizations.[26] The *Environmental Guidelines* listed twelve organizations as key contributors[27], all of which are either representatives of the mining industry or government agencies, and furthermore, the funding for the project came entirely from foreign mining companies leading one observer to conclude: "the production of the document was funded by the mining industry and it cannot be trusted since it merely parrots the wishes of the mining industry."[28] In any event, the guidelines are non-binding, and provisions are frequently qualified by language such as "where practicable."

By the time the *Environmental Guidelines* had been published in 2001, a new government under the New Patriotic Party (NPP) had been elected, and had thus "inherited the problem"[29]. Under increasing public pressure, the list of proposed operations was decreased to five[30] and the government undertook site visits. The final approval for these operations came on 12 February 2003, in a letter issued by the Ministry of Mines to the Ghana Chamber of Mines.[31]

The Ministry of Mines (now Ministry of Lands, Forestry and Mines) has defended its decision to allow mining in forest reserves with several key arguments:[32]

- The companies had invested substantial sums of money: not allowing them to proceed would mean that Ghana would have to compensate them and would also discourage future investments in the industry;

- The benefits of mining in terms of jobs and local infrastructure and royalties to the government outweigh the environmental consequences;

- The areas earmarked for mining are not pristine, they have already been degraded; and

- Stricter environmental controls will be placed on the companies (the *Environmental Guidelines*) and they will be required to plant trees outside of their concessions in addition to rehabilitating the mine area.

On the other hand the FOE-Ghana Coalition argued that:[33]

- The net return of mineral wealth despite the significant foreign investment inflow into the sector is very doubtful;

- Forest reserves must be protected for their own sake because of the vital economic, social and environmental functions they play which is necessary for the quality of life we live on Earth;

- Mining in forest reserves contravenes various national policies and the principles underlining the establishment of forest reserves in Ghana; and
- Mining in forest reserves contravenes international agreements to which Ghana is signatory, such as the Convention to Combat Desertification, the Conservation on Biological Diversity, and the Kyoto Protocol.

4.2 Indonesia

Mineral investment in Indonesia is organized under a contract-of-work (CoW) system. According to the Foreign Investment Law of 1967, "[f]oreign capital investment in the field of mining shall be based on a cooperation with the government on the basis of a contract-of-work or other form of agreement, in accordance with the prevailing regulations."[34] Following the promulgation of the Foreign Investment Law, the first CoW was signed in April 1967 between the Government of Indonesia and Freeport Indonesia Incorporated. It was the first foreign investment project approved by the New Order government. Soon after, in December 1967, the government promulgated the Basic Mining Law, which remains the foundation of mining law in the country to this day. The Basic Mining Law, following the spirit of the 1945 Constitution, stipulates that mineral deposits are controlled exclusively by the state. State and national mining companies are to conduct mining on the basis of mining authorizations and permits, while foreigners participate in the sector through CoWs, as stipulated in the Foreign Investment Law. The Basic Mining Law requires that the government consult Parliament before approving and signing a CoW.

In the early years of the CoW system (1967-1970), the majority of the content in the contracts was negotiated, but later a standardized text on terms pertaining to technical, legal and general matters was adopted (Hoed 1997: 122). However, periodic changes to laws and regulations on taxation and financial matters required adjustment to the standardized terms, resulting in several "generations" of contracts. Between 1967 and 1998, 236 CoWs were signed, the majority in the 4th generation (1985-1990) and 6th generation (1997). At the time of writing, the Indonesian government was in the process of drafting a new mining law which may radically change, or eliminate entirely, the CoW system.

A CoW specifies land rents, royalties and other payments to be made by the company to the government. In addition it describes the environmental obligations of the company although these are for the most part general statements which, according to Hamilton (2005: 38), "lack the specificity required to allow effective inspection and enforcement of their terms." With regard to the settlement of disputes, there are options for conciliation and

arbitration under internationally accepted rules. In later generations the contracts specifically make reference to UNCITRAL Rules.

In addition to access to international dispute settlement, the CoW also has two critical elements for attracting investors: conjunctive title and *lex specialis*. Conjunctive title refers to the fact that if a commercial discovery is made, the CoW allows for the contractor to proceed from the initial stages of survey and exploration all the way through to exploitation and marketing. *Lex specialis* in this instance refers to the fact that the terms and conditions of a CoW are not subject to changes in the general laws and regulations of Indonesia. As Barberis (1998: 47) makes clear "the CoW, once approved by Parliament, has the status of law. Therefore in the case of conflict between the law and regulations of Indonesia and the CoW, the CoW supersedes."

The Dispute

In 1999, the Government of Indonesia passed a number of reform laws, including an act on Forestry. Law no. 41 Year 1999 Stipulation to the Act on Forestry replaces Act no. 5 Year 1967 on Forestry Basic Law. Article 1 lays out the basic definitions of the Act, including the designation of various types of forest. These include: production forests, which are allocated mainly for the exploitation of forest products; protection forests, which have the chief function of protecting life-supporting systems for hydrology, preventing floods, controlling erosion etc.; and conservation forests, which are principally aimed at preserving plant and animal diversity.[35] Article 38(4) stipulates that that open-cast mining is prohibited in protection forests. The reason for this prohibition is that to expose and mine the ore in an open-cast design, it is generally necessary to excavate and relocate a large quantity of "waste rock." Two of the main environmental concerns of the construction of open-pit mines are the disruption of whatever ecosystem occurred where the mine was excavated, and the disposal of the waste rock. Other environmental impacts, applicable to any mine, are the building of roads, which require the clearance of land and result in changes to the hydrological functioning of the ecosystem, as well as the opening of access to the area to exploitation from other sectors.

Prior to the entry into force of Forestry Law 1999/41, a number of CoWs had been signed covering areas of protection forests. In fact, over one hundred and fifty companies were supposedly affected by the ban on open-cast mining. At first the companies carried on with their activities as they presumed that the legislation would not be applied retroactively and that, in any case, the contracts were *lex specialis* and would, therefore, not be affected.

The issue, however, was eventually brought to the attention of the public and was taken up by a number of nongovernmental organizations (NGOs). The Forestry department stopped issuing permits to mining companies in protection forests and all affected contracts were effectively suspended.

In 2002 reports began to emerge that several foreign mining companies were threatening to bring the Government of Indonesia before international arbitration on the matter of the Forestry Law. The NGOs involved in the debate declared that the threat of arbitration was without basis.[36] The following reasons were cited:

- All contracts state that companies must conform with the relevant environmental protection laws and regulations of Indonesia;

- The law only prohibits surface mining, whereas underground mining is still permitted;

- All the contracts in protected areas were signed during the period of authoritative government, and the Forestry Law was made under democratic rule;

- The preservation of protected areas is an issue of global concern with popular support;

- Indonesia is bound by international commitments including the provisions of the Convention on Biological Diversity,[37] and the Statement of Forest Principles and also participates in the United Nations Forum on Forests.

The Government of Indonesia proceeded to produce a list of twenty-two companies with CoWs signed prior to the promulgation of Forestry Law 1999/41 that they recommended be given approval to operate in protected forests. How this list was devised from the original one hundred and fifty or so affected companies is not clear. Furthermore, the list did not remain constant over time; with half of the companies being removed (due to gloomy business prospects) and a further eleven being added, leading State Minister for the Environment Nabiel Makarim to ask “whether twenty-two was a sacred number.”[38] In November of 2003, it was reported that thirteen “prioritized” companies from the list of twenty-two would be allowed to continue operations with the issuance of a Presidential Decree, but the actual issuance of the decree was put off until a later date.[39] These companies were prioritized because their operations were seen to be economically viable. The nine companies on the original list of twenty-two that were not included on the prioritized list of thirteen were reported to have made continued threats to sue the government. In March 2004, Paul Louis Coutrier, an executive of the Indonesian Mining Association, was quoted as stating that the

nine companies had strong grounds to file a lawsuit, though he hoped that the dispute would be settled out of court.[40] The threat was particularly strong from PT Inco (Canada), but this company was later confirmed to in fact be on the prioritized list of thirteen.

On 11 March 2004, Perpu (government regulation substituting a law) no. 1/2004 was issued by the Government of Indonesia to add a new provision to the 1999 Forestry Law stating: "All permits or contracts in mining in forest areas which were issued before the promulgation of Law 41 of 1999 on Forestry are declared to remain valid until the expiration date of the respective permit or contract."[41] It also stated that further implementation of the Perpu would be determined by Presidential Decree.[42] The Constitution of 1945 provides that a Perpu should be utilized only in "a pressing matter of utmost urgency." This type of measure had only been used once before by the Megawati administration, following the 2002 Bali terrorist bombings.[43] Many environmental groups questioned the "utmost urgency" of the mining issue, but also pointed out that the Perpu did not actually change the position of the companies, whose contracts had never been declared invalid.

The Presidential Decree (no. 41/2004) issued in May was more specific and named the thirteen companies that would be allowed to continue operations in protection forests. The Decree also stated that the operations would be further regulated under a separate decree to be issued by the Ministry of Forestry. Immediately following the issuance of the Presidential Decree, a group of NGOs issued a statement that they would bring the Perpu, which had not yet been approved by Parliament, before the Constitutional Court for Judicial Review. Following the development of a special commission and much deliberation, the House of Representatives finally voted on the Perpu in July. Initially it appeared that the emergency law would be rejected,[44] and the NGOs were confident that they "had the numbers" needed to defeat it.[45] However, the Perpu was passed into law (Law no. 19/2004) by a vote of 131 to 102[46] amidst allegations of corruption. NGOs reported that they had been informed that the government would provide Rp1 billion for every faction in the national parliament that voted to allow the mining operations to go ahead. These allegations were corroborated by several members of Parliament who came forward claiming to have been offered bribes. The money for the bribes was allegedly solicited from the mining companies by the Department of Mines.[47].

In 2005, in what appeared to be the last hurdle for the government, the Constitutional Court conducted its review of Perpu no.1/2004 and Law 19/2004. The Minister of Forests was reported to have stated that he would be happy if the Court annulled the law,[48] however, it did not. Instead the judges concluded that:

> Although this Court shares the opinion of all the experts brought by the appellants regarding the dangerousness and negative impacts of open pit mining in protected forests, nevertheless this Court also understands the reasoning for the need for transitional regulation which continues the legal status or rights gained by mining companies before the advent of the Forestry Law.[49]

4.3 Analysis

The Indonesian and Ghanaian cases have many similarities. In both instances the debate was split between the investors and mining departments on one side, and the environmentalists and forestry departments on the other. The arguments made by each side are also remarkably similar, as are the evident underlying motivations for the final decisions that were made by each government. While some might view the cases as nothing more than further proof of a lack of policy coherence and coordination in the governance of natural resources in developing countries, others suggest that they may also provide evidence supporting the regulatory chill hypothesis (Gross 2003). The chilling effect is likely the result of both the desire to maintain existing mineral investments and attract further ones and to avoid a costly arbitration.

According to several sources in Ghana, the threat of international investment arbitration was clearly made by companies with interests in the forest reserves, though there is disagreement between the sources over whether this was a serious threat[50], or merely an excuse used by the government to defend their position[51]. One interviewee suggested that the reason many were not convinced that the threat of arbitration was serious was that they believed that if the case went to arbitration then Ghana would win, because it is clear in Ghana's laws that mining in forest reserves is not permitted, and the former government as well as the companies are both at fault for breaching the law.[52]

The WHALI-Coalition statement suggests the same confidence of activists in Indonesia. They argued that mining companies are required in their contracts to comply with the relevant environmental laws of Indonesia. For example, the CoW of Pt. Nusa Halmahera Minerals (Australia) states that the company shall:

> In accordance with the prevailing Environmental protection and natural preservation laws and regulations of Indonesia from time to time in effect, use its best efforts to conduct its operations under this Agreement so as to minimize and cope with harm to the Environment and utilize recognized modern Mining industry practices to protect natural resources against unnecessary damage, to minimize Pollution and harmful emissions into the Environment, to dispose of Waste in a manner consistent with good Waste disposal practices, and in general to provide for the health and safety of its employees and the local community.53

The use of the terminology "time to time in effect" suggests that investors should not expect regulations to remain frozen over the course of the contract. Gross argues that the clear requirement of companies to comply with environmental regulations, combined with the

absence of stabilization clauses in the CoWs, rules out the possibility that the companies could effectively argue that there was a breach of contract by Indonesia (Gross 2003: 896). Additionally, according to a report in *The Jakarta Post*, a noted lawyer told legislators that they should not worry about being sued for breach of contract because the Forestry Law had been ratified by the House of Representatives and any agreements signed between the government and investors could not violate Indonesian law.[54] However, the investors argued that this conclusion failed to take into account the fact that CoWs also have the status of law in Indonesia. Furthermore, according to several observers, the Indonesian government had been "burned" in previous arbitrations and was not eager to try their luck again.[55] *The Jakarta Post* noted:

> Government officials have often cited a case in which the Geneva Arbitration Court ordered state oil and gas company Pertamina to pay US$261 million in compensation to Karaha Bodas Co., which was owned by several U.S. investors for canceling its geothermal power project in Garut, West Java.[56]

Gross (2003: 895) suggests several elements that connect the threat of arbitration to the government's decision:

> The unprecedented speed at which the government took action on the issue after two years of inaction in the face of mining company complaints regarding the law; the exact coincidence between the companies listed in the article reporting the threat and those which had been granted relief or which will be soon; and the timing of the reversal all weigh heavily toward the conclusion that the threat plays a significant role in the process.

The need to avoid arbitration was also mentioned by the Parliament in their discussions on the issue and by the judges in the Constitutional Court decision.[57] Furthermore, the fact that the government is now trying to move away from the CoW system, and is specifically trying to remove the recourse to international arbitration in future arrangements with mining companies,[58] suggests that the threat of a dispute was a serious concern of the administration (although this shift is also likely connected to efforts to decentralize the governance of mineral resources).

Concerns about the cost of compensation appear to have been a factor in decision-making in both countries. The Indonesian government reportedly received legal advice that it could be sued for up to US$ 31 billion.[59] The Minister for Environment at the time, Nabiel Makarim, stated that the decision to issue the licenses for thirteen companies was "hard luck"[60] and only taken to avoid paying compensation for which funds were not available.[61] There were no reports in Ghana that suggested a possible figure for the amount of compensation that the government might be expected to pay, but it was implied that there had been significant investments made by the mining companies. One publication in Ghana argued that "it is better for the government to refund the money to the companies, rather than

giving out concessions for them to destroy the remaining forest reserves in the name of investment"[62], however, others suggest that the government simply could not afford to do so.[63]

Potentially even more crucial than concerns over compensation payments were apprehensions about the impact that an arbitration would have on the image of the country in the eyes of investors in both the mineral and other sectors. Indonesia's mining sector ranked twenty-seventh out of thirty-five countries assessed for 'attractiveness' in a 2001/2002-industry survey.[64] The low attractiveness ranking is not based on resources, which are in abundance, but rather due to problems in the 'investment climate'.[65] The desire to keep the existing mineral investments and attract further ones was likely a factor in the Indonesian government's decision to issue the Perpu. However, even greater concern was evident in Ghana, a country that is generally perceived as quite 'investor-friendly'. There were comments made in the press suggesting that the indecision over whether to open the forest reserves to mining had contributed to dwindling investment in the country.[66] In addition, at least one company seeking a concession inside a reserve made it clear that its other potential investments in the country would be impacted by the government's decision.[67] Several observers suggested that the government feared investment arbitration not because they feared losing, but because they feared the impact that denying the leases and proceeding to arbitration would have on their reputation as an investor-friendly country.[68]

The other arguments made in Ghana and Indonesia in favour of allowing the mining to go forward are also similar, such as the claims that other activities (e.g. illegal logging) contribute more to forest loss and that, in any case, the forest reserves/areas have already been degraded. According to one publication "Ghana mine operators roll their eyes at the 'reserve' designations because locals have already plundered them."[69] Even the former Minister of Mines Cecilia Bannerman has reportedly stated that "many of these reserves are reserves only on paper"[70] and the current Minister, Prof. Dominic Fobih, has also referred to the forests as "so-called reserves."[71] Others take a different view; disputing first of all the notion that the reserves in question are all degraded and suggesting to the contrary that there are still areas of virgin forest.[72] In addition it has also been suggested that it is illogical to conclude that because an area is degraded it should be "offered up for further degradation."[73] Even a representative of one of the mining companies involved in the debate admitted that it was understandable that there was controversy over mining, even if the forests were degraded, because there was not much forest left in Ghana.[74] In Indonesia, mining investors question the focus of NGOs on the debate when, they argue, far more forest is degraded by other

activities. NGOs and others would counter that even if the area of operations itself is limited, mining activities have multiple knock-on effects, including opening up previously inaccessible areas to other damaging activities such as illegal logging. Interestingly, in each country the NGO-coalitions also backed up their arguments with claims that allowing the mining to go ahead would contravene not only national law, but also obligations found in multilateral environmental agreements.

Finally, in both the Ghanaian and Indonesian cases, the compromise between the stance of the investors/mineral departments and the environmentalists/forestry departments was to restrict the number of companies allowed to operate in the forests and to tighten the environmental requirements of those companies. In each case those investments considered most economically viable were permitted to proceed with exploration and mine development. In Ghana the companies operating in forests will not be permitted to build any additional facilities within the reserves and will also be required to reforest the areas that they clear. However, according to one forestry official, the idea of restoring the forest is a myth: “you fell tropical trees and in place you plant grass and ornamental trees – you fell mahogany and plant cassia – it is not the same. After mining the soil is unable to sustain indigenous species.”[75] Officials from international organizations operating in Ghana were even more pessimistic; “resources from mining will never be reinvested in forestry – rehabilitation doesn’t happen in Africa.”[76] In Indonesia, the Ministry of Forestry issued a Ministerial Decree (no. 12/2004), outlining restrictions on the operations of companies permitted in protection forests. According to a spokesperson for the Ministry: “The decree is designed to limit the potential destruction caused by mining operations on natural forests and the environment.”[77] Included in the decree was a requirement for companies to pay a bond to cover the costs of rehabilitating areas following mine closures, and also to provide alternate areas of land for reforestation. These requirements, however, may still be subject to challenge from the mining companies. The current chair of the Indonesian Mining Association, Jeffrey Mulyono, was recently reported to be particularly upset with the requirement that mining firms operating in protection forests would have to provide a “compensatory site” twice as large as the mining concession. According to Mulyono, the requirements will cause unnecessary problems for mining firms and could deter future investment in the sector.[78] An Inco report to the US Securities and Exchange Commission also alludes to this issue:

> While PT Inco continues to believe that the terms of its Contract of Work provide it with all authorizations needed to conduct mining activities in the areas covered by its Contract of Work and any disputes relating to its Contract of Work are subject to arbitration under international conventions, if the Forestry Regulation restricts PT Inco’s ability to mine in certain areas, it could reduce PT Inco’s estimated ore reserves and adversely affect PT Inco’s long-term mining plans[79]

Epilogue

It is interesting to note that both Ghana and Indonesia have recently drafted new mineral laws. In Ghana the new Minerals and Mining Act (Act 703) passed in March 2006. The Indonesian law is still being debated and re-drafted. What is interesting is that these two countries appear to be taking different approaches in their new laws: while Indonesia appears to want to limit the protection of investors, and in particular their access to international arbitration, Ghana appears to be offering even more extensive protection than before. The key provisions of the Ghanaian law are found in Sections 48 and 49, where investors are given the opportunity to sign so-called 'stability agreements' and 'development agreements' with the government. These agreements are binding and are subject to international arbitration. A stability agreement ensures that the holder of the mining lease will not, for a period not exceeding fifteen years from the date of the agreement:

> be adversely affected by a new enactment, order instrument or other action made under a new enactment or changes to an enactment, order, instrument that existed at the time of the stability agreement, or other action taken under these that have the effect or purport to have the effect of imposing obligations upon the holder or applicant of the mining lease (Section 48a).

According to the Minister of Lands, Forestry and Mines, Prof. Dominic Fobih, the "essence" of this provision is to "protect the holder of a mining lease for a period not exceeding fifteen years from being adversely affected by future changes in laws that result in heavier financial burdens being imposed on the holder."[80] In addition to the stability agreement, an investor may also enter into a development agreement, if the proposed investment will exceed US$500 million. Such an agreement "may contain provisions";

> a) relating to the mineral right or operations to be conducted under the mining lease;
> b) relating to the circumstance or manner in which the Minister will exercise a discretion conferred by or under this Act;
> c) on stability terms as provided under section 48
> d) *relating to environmental issues and obligations of the holder to safeguard the environment in accordance with this Act or other enactment*; and
> e) dealing with the settlement of disputes
>
> (Section 49, emphasis added)

Butler (2004: 74-75) has described similar clauses found in Tanzania's 1998 Mining Act as a "legislative loophole", which "allows some rules to be suspended or modified in favour of private corporate mining interests." The former Minister of Mines in Ghana viewed it quite differently, stating: "Such agreements are mutually beneficial to investors and government as they enable both parties to negotiate and agree on specified commitments and expectations."[81] The Ghana National Coalition on Mining (a group of organizations, communities, and

individuals) is not convinced of this and strongly opposed the inclusion of stability or development agreements in the new law.[82]

5. Conclusions

There is no question that mining is a risky activity, both from an economic and an environmental standpoint. It is understandable, therefore, that mining investors have sought to reduce the risks that they face by gaining legal protection for their investments, while governments have sought to reduce environmental risks by regulating the sector. The question is whether, in the struggle to compete for a limited share of foreign investment, developing countries have been able to achieve a balance between these competing interests, or on the other hand, whether too great a burden of risk has been shifted to regulators, and to the broader public.

The Ghanaian and Indonesian cases provide several lessons for researchers exploring the relationship between investment and the environment. First, they illustrate how competition for investment and legal protection of investment are intimately connected in a reinforcing relationship; governments offer legal protections in order to compete for investment, and may in turn also try to avoid investment arbitration in order to maintain their competitiveness. Thus, it illustrates the limitations of discussions, such as those surrounding the pollution haven hypothesis and investor-state disputes, which fall along disciplinary lines.

Second, the cases show that in addition to international agreements (which have recently been placed under the spotlight by non-governmental organizations) national laws and state contracts also offer protections for investment which may mirror those protections found in BITs, or even surpass them. Stability clauses or agreements, in particular, have the potential to greatly influence the development of environmental law in countries where they are employed. This is especially true in the context of the mineral sector, where investments are generally long-term, with contracts that can last thirty years or more.

Third, while the literature on investment and the environment has been largely focused on developed countries, both in terms of the focus on industrial flight in the pollution haven debate, and in terms of the focus on NAFTA disputes in the legal field, the Ghanaian and Indonesian cases show that there is ample reason to devote more effort to studying this relationship in the specific context of developing countries. Such research is critical as foreign investment becomes ever more important to the developing world, and as the rapid rise in agreements on investment continues.

Finally, it would appear that the concept of regulatory chill is one which deserves further consideration. The Governments of Indonesia and Ghana clearly believed that they risked losing investment if they did not allow mining to proceed in the protected forest areas. They also believed that they would have had to compensate the companies involved. Thus the chilling effect is found both in the threat of lost investment and the threat of arbitration. It is of course not possible to draw far-reaching conclusions about the relevance of the regulatory chill hypothesis to the entire developing world from two disputes in two countries, however, it is fair to suggest that this is an area of research that warrants further inquiry. While such inquiry will undoubtedly prove difficult, it is essential to the development of a comprehensive understanding of the relationship between investment and the environment, which in turn, is critical for any project that aims to make investment sustainable.

Notes

1. This paper draws heavily on two recently published articles: Tienhaara, K. (2006) What You Don't Know Can Hurt You: Investor-State Disputes and the Environment. *Global Environmental Politics* 6(4): 73-100, and Tienhaara, K. (2006) Mineral investment and the regulation of the environment in developing countries: Lessons from Ghana. *International Environmental Agreements: Politics, Law and Economics* 6(4)
2. As Otto and Cordes (2002: II-3) correctly point out, the term 'minerals' can cover a wide range of substances. In this paper, the term refers to metallic or industrial minerals (nickel, silver, gold etc.) and excludes energy related minerals (petroleum, gas, coal) and radioactive minerals, which are generally regulated by separate and specialized policies.
3. Chapter 11 of the Agreement covers investment. See http://www.nafta-sec-alena.org.
4. The Rules and Regulations are available online at http://www.worldbank.org/icsid/.
5. See the UNCITRAL website at: http://www.uncitral.org/uncitral/en/index.html, *last viewed 06-07-06.*
6. The full text of the Rules is available online at: http://www.uncitral.org/uncitral/en/uncitral_texts/arbitration/1976Arbitration_rules.html.
7. See generally: Blackaby (2004), Garcia (2004), and Peterson (2005).
8. According to an UNCTAD (2005b) report, companies have been known to spend up to $US4 million on lawyers' and arbitrators' fees for an investor-state dispute, and countries can expect an average tribunal to cost $US400,000 or more in addition to the US$1-2 million in legal fees.
9. For a developing country perspective on investment arbitration see: Garcia (2004), and Sornarajah (2002).
10. Cases are not necessarily made public, and thus it is not possible to assess how many exist in total.
11. See for example Compania del Desarrollo de Santa Elena SA v. Republic of Costa Rica (2000) *International Legal Materials* 39(6), 1317-1337 (award available online at: http://www.worldbank.org/icsid/cases/awards.htm), Ethyl Corp. v. Government of Canada. 1999. *International Legal Materials* 38(3), 700-737 (award available online at: http://www.dfait-maeci.gc.ca/tna-nac/disp/ethyl_archive-en.asp), Glamis Gold Ltd. v. United States of America (case pending, preliminary documents available online at http://www.state.gov/s/l/c10986.htm), Metalclad Corp. v. United Mexican States. 2001. *ICSID Review* 16(1), 165-202 (award available online at: http://www.worldbank.org/icsid/cases/awards.htm), Methanex Corp. v. United States of America. 2005 (award available online at http://www.state.gov/s/l/c5818.htm), S.D. Myers, Inc. v. Government of Canada. 2001. *International Legal Materials* 40(6), 1408-1492 (award available online at: http://www.dfait-maeci.gc.ca/tna-nac/disp/SDM_archive-en.asp), Técnicas Medioambientales Tecmed, S.A. v. United Mexican States (ICSID Case No. ARB(AF)/00/2) (award available online at: http://www.worldbank.org/icsid/cases/awards.htm).
12. See for example Baughen 2001, Gantz 2001, Guzman 1998, Mann 2001, and Peterson 2003.
13. Letter from M. Karlsson, World Bank Country Director for Ghana, Sierra Leone and Liberia, to National Coalition of Civil Society Groups Against Mining in Ghana's Forest Reserves, December 4, 2003. Available online at: http://www.bicusa.org/bicusa/issues/Response_from_WBGhanaCountryDirector_12-04-03.pdf.
14. Ghana Minerals Commission website: http://www.mincomgh.org/minerals_sector/index.html *last viewed 06-07-06*.
15. Ibid.
16. According to the Government of Ghana website (http://www.ghana.gov.gh/faq/faqans.php?id=0000000022 *last viewed 06-07-06*) Ghana has negotiated BITs with Bulgaria, Burkina Faso, China, Cote d'Ivoire, Cuba, Denmark, Egypt, France, Germany, Guinea, Malaysia, Mauritania, Mauritius, Netherlands, Romania, South Africa, Switzerland, United Kingdom, United States of America (signed with OPIC), Yugoslavia, Zambia. The BITs with Denmark, the United Kingdom, The Republic of China, Romania and Switzerland have been ratified (according to the U.S. Department of State 2005 Investment Climate Statement for Ghana, see http://www.state.gov/e/eb/ifd/2005/43028.htm). The U.S. has in fact signed three agreements with Ghana (the OPIC Investment Incentive Agreement, the Trade and Investment Framework Agreement, and the Open Skies Agreement), however these are not traditional BITs.
17. Mining Lease signed between the Government of the Republic of Ghana and Canadian Bogosu Resources Ltd., 21 August 1987. Mining Lease signed between the Government of the Republic of

Ghana and Canadian Bogosu Resources Ltd., 16 August 1988. Mining Lease signed between the Government of the Republic of Ghana and Bogoso Gold Ltd., 29 June 2001.

18. All three leases are now under the control of Golden Star Resources Ltd. The 1987 and 1988 leases can be found in Golden Star Resources Ltd. Form 10-K (Annual Report) Filed 3/29/2006 For Period Ending 12/31/2005. The 2001 lease can be found in Golden Star Resources Ltd. Form 8-K Filed For Period Beginning 10/25/2001. These filings can be found online at http://www.edgar-online.com
19. "Newmont joins mining list" *Ghana News Agency*, 19 December 2003.
20. Author's confidential interview with a non-governmental representative (#3), Accra, June 2005.
21. Newmont Ghana Gold Ltd. 2005. Environmental and Social Impact Assessment: Ahafo South Project. Accra. Available online at: http://www.newmont.com/en/operations/projectpipeline/ahafo/docs/envsocimpaccess.asp.
22. Chirano Gold Mines Ltd. 2003. Chirano Gold Project Scoping Report & Terms of Reference. Prepared by SGS Environment, Project No. B246. Available in the Environmental Protection Agency Library, Accra.
23. Environmental Guidelines for Mining in Productive Forest Reserves in Ghana, May 2001, p.1.
24. Author's confidential interview with a non-governmental representative (#3), Accra, June 2005.
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26. National Coalition of Civil Society Groups Against Mining in Ghana's Forest Reserves: A presentation to the Ghanaian Media, 31 March 2004, Old Press Centre, Accra. Available online at: http://www.bicusa.org/bicusa/issues/Coalition_press_statement_March04.pdf.
27. Abosso Goldfields Ltd. (South Africa), Ashanti Goldfields Company Ltd. (South Africa), Birim Goldfields Inc. (Canada), Environmental Protection Agency, Forestry Commission, Forestry Services Division, Ghana Chamber of Mines, Knight Piesold Consulting (global consulting firm, with representatives from Australia and South Africa), Minerals Commission, Mines Department, Ministry of Lands and Forestry, Wildlife Division.
28. "Golden Greed: Trouble Looms over Ghana's Forest Reserves", World Rainforest Movement News Release. Available online at: http://www.wrm.org.uy/countries/Ghana/Goldengreed.html, *last viewed 06-07-06.*.
29. Mr. Kwadjo Adjei Darko, former Minister of Mines, quoted in ibid.
30. The companies were Newmont (United States), Nevsun Resources (Canada), Birim Goldfields (acquired by Goldenstar Resources/Canada), Chirano Goldmines (acquired by Redback Mining/Canada), and Satellite Goldfields (acquired by Goldenstar Resources/Canada).
31. Chirano Gold Mines Ltd. 2003. See note 22.
32. This summary of arguments is based on Tetteh (2004), various news articles quoted elsewhere in this paper, and the author's confidential interviews with mining investors (#1 & #20), government officials (#2 & #12), non-governmental representatives (#3, #4, #8 & #11), representatives of international organizations (#6), and academics (#9, & #18), Accra, Kumasi and New Abirim, June 2005.
33. National Coalition of Civil Society Groups Against Mining in Ghana's Forest Reserves. See note 26.
34. Article 8, quoted in Hoed 1997, 119.
35. Articles 1.7-1.9. An unofficial translation of the law is available at www.fppm.org/KAJIAN%20KEBIJAKAN/Kaji%20PDF/law41_99.pdf.
36. WALHI (Friends of the Earth Indonesia) and JATAM (Mining Advocacy Network) released a press statement on 4 April 2002: "Mining Industry Threatens Indonesia with International Arbitration," available at www.jatam.org/english/case/conservation/uploaded/press_release_4_April_2002.pdf.
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45. Author's confidential interviews with nongovernmental representatives (#1 and #7), Jakarta, July 2005.
46. "Disputed Mining Bill Endorsed," *The Jakarta Post*, 16 July 2004.

47. "NGOs Allege Bribery in Indonesian Government Bid to Allow Mining Permits to Resume in Protected Forest," *MiningIndo*, 13 November 2002, "Lawmakers Smell Fishy Deal behind Mining Regulation," *The Jakarta Post*, 24 July 2004, and the author's confidential interview with a foreign embassy official (#4), Jakarta, July 2005.
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50. Author's confidential interviews with government bureaucrats (#7), academics (#9), and non-governmental representatives (#11), Accra, June 2005
51. Author's confidential interviews with non-governmental representatives (#8), and academics (#9 & #18), Accra and Kumasi, June 2005
52. Author's confidential interviews with a non-governmental representative (#4), Accra, June 2005
53. Article 26. It should be noted that CoWs are not, in general, public documents, although model CoWs have been published. A copy of this specific CoW was obtained from an NGO in Jakarta. Several other CoWs were also retrieved by the author from company filings to the Securities and Exchange Commission, which are available online at pro-edgar-online.com.
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